ONC Real World Test Plan

Physician's Solution v 11.0

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GENERAL INFORMATION

Plan Report ID Number: [For ONC-Authorized Certification Body use only]

Developer Name: MD Charts, LLC

Product Name(s): Physician's solution

Version Number(s): 11.0

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Developer Real World Testing Page URL: mraemr.com:47102/Real_World_Test_Plan.pdf

JUSTIFICATION FOR REAL WORLD TESTING APPROACH

This document is outlined to perform the real world testing of ONC certified criteria's in production environment. We will be testing this regression test methodologies which can be covered all parts of the application and end-to-end real patient workflows. During the testing, certified providers and medical staff will be using the template of the test procedures to perform the actions in Physician's solution application.

As part of the testing we will be using various testing methodologies like Test driven approach, Behaviour driven approach and session based approach to cover different kinds of patient's workflows. The above methodologies will be covering small to large organizations, type of settings, volume of patient records, all components of the system, interoperability of records, and all certified HealthIT modules.

TESTING ENVIRONMENTS

Testing will be performed in combination of production systems and test environments. Most of the criteria's will be tested in production environments and some are will be performed in test environment with the replica of real patient data.

STANDARDS UPDATES (INCLUDING STANDARDS VERSION ADVANCEMENT PROCESS (SVAP) AND UNITED STATES CORE DATA FOR INTEROPERABILITY (USCDI))

Not Applicable at this moment as we have not completed any standard update.

We will be updating Physician's solution software to match the new standards of all HealthIT modules.

MEASURES USED IN OVERALL APPROACH

Care Coordination

170.315(b)(1) Transitions of care

170.315(b)(2) Clinical information reconciliation and incorporation

170.315(b)(6) Data export

Clinical Quality Measures

170.315(c)(1)—record and export

170.315(c)(2)—import and calculate

170.315(c)(3)—report

Patient Engagement

170.315(e)(1) View, download, and transmit to 3rd party

Public Health

170.315(f)(1) - Transmission to immunization registries

170.315(f)(2) Transmission to public health agencies — syndromic surveillance

170.315(f)(5) Transmission to public health agencies — electronic case reporting

170.315(f)(6) Transmission to public health agencies — antimicrobial use and resistance reporting

170.315(f)(7) Transmission to public health agencies — health care surveys

Application Programming Interfaces

170.315(g)(7) Application access— patient selection

170.315(g)(8) Application access— data category request

170.315(g)(9) Application access— all data request

Electronic Exchange

170.315(h)(1) Direct Project

Justification for selecting these measures:

Most of the customers of Physician's solution software, will be using above criteria's on a regular schedule. This will help us make our product bug free and our customers will not hit any show stoppers in the real patient care settings.

Care Setting(s):

We will performing real world testing in below care settings:

Outpatient clinics (Dermatology, Cardiology, Urology, Gynaecology, Paediatrics):

We have chosen this care setting as 70% of our customers in these kind of settings. It will really help us to cover all end-to-end scenarios in production environment.

Nursing home facility (Internal Medicine):

30% of our customers are in this care setting. We need to all workflows of these setting, which will make our product rock solid in different care settings.

Justification for Real World Test plan:

Real time patient workflows will be utilized to execute the features of the EHR which are required for the certification criteria. In few cases actual patient data will be used to confirm the compliance related requirements. The test cases will include steps to capture the required data and workflows. It will be focused on demonstrating all compliance rules with interoperable certification criteria. Testing will be done on client database replicated environments and on real environments as well. Evidences will be collected from real production environment wherever it's needed.

We will be using all Test methodologies depending on the certification criteria. Testing also depends on customer data setup and usage. Patient data entry will be manual depending on the customer and which will be entered by skilled professionals. We will capturing the screenshots of data and testing ONC certified test tools, logs, Real world examples and use test and production environments for the testing purpose. In some cases we will be conducting the survey or testing by provider to know the feedback on the product.

Reporting data by certification criteria using the Physician solutions reporting tools. Some of the metrics will be collected on monthly basis as per the functionalities of the Physician solutions EHR.

Expected outcomes:

We will use the reporting and other verification, log and reporting test methodologies to get the counts and creating baselines of below certification criteria's.

RWT Task 1: 170.315(b)(1) Transitions of care and 170.315(h)(1) Direct Project

Task description:

Generating the CCDA at the end of the outpatient vision and transmitting the same to another provider via direct message and get the conformation receipt from client environment. Getting the proof of successful C-CDA transmissions in the client's environment from the CCDA list. Also the ability to receive a C-CDA via direct messaging into the client folder and import the same and save it into the EHR.

Justification:

This is to demonstrate the ability to create and send C-CDAs to another provider using Direct Messaging once the outpatient visit is completed. Also demonstrate the ability to receive and incorporate the CCDA from external source system using direct message when patient is arrived for a visit via referral. Also the number of 3rd party destinations the direct messages were sent to and received by EHR will be counted. This will help us to understand the volumes of direct messages.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Two use cases involved in this scenario. Those are 172.315.(b)(1) and 170.315.(e)(1)

This particular measurement will provide information on number of CCDA's transmitted and the data will be collected from the common reporting mechanisms. All the required element should be available in the xml file while creating CCDA and sending the same to third party. Also, to ensure that, data from the CCDA is saved successfully in the EHR system after the incorporation of the received CCDA file via direct message data. While importing the data if the received CCDA has any errors those errors need to be logged successfully.

Also, logging the CCDA transmission activity and providing the receipt of the successful CCDA transmission to the other provider via direct messaging inbox notifications. Also proof the receipt third party CCDA in to the Physician solutions EHR via direct message email box. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 2: 170.315(b)(2) Clinical information reconciliation and incorporation

Task description:

Ability to reconcile for the problem list, medication list and allergy medication list from actual problems, medications and medication allergies fetched from a C-CDA in replicated client testing environment.
Need to verify the proof of successful reconciliations of fetch xml data in client production environment into the problem list, medication list and allergy list in the Physician solution's EHR.

Justification:

To validate the capability to reconcile actual problems, medications and medication allergies fetched from a C-CDA into the EHR in a real-world environment.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Indenting the data from CCDA which is reconciled, and making sure the inbound CCDA data extracted successfully and reconciled problems, medications, and medication allergies data into the EHR problems, medications and allergies. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 3: 170.315(b)(6) Data Export

Task description:

Ability to export patient list data of C-CDAs at different time frame and entire patient list with the ability to save them to a file system location at the client site.

Justification:

Ability to export patient list data of C-CDAs at different time frame and entire EHR patient list with the ability to save them to a file system location at the client site.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Export patient list data of C-CDAs at different time frame and entire EHR patient list with the ability to save them to a file system location at the client site. User should be able to see the all patient list data in the give folder. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 4: 170.315(c)(1) - 170.315(c)(3) Clinical quality measures—Record, export, Calculate and report.

Task description:

Ability to export (c1) the category 1 patient data recorded in the EHR for a specified patient population and import that into the Cypress Test Tool for calculation of specified quality measures that will match the results obtained in the testing and calculate quality measure for the patient population (c2) and generate the report (c3)

Justification:

To demonstrate that the ability to generate QRDA Cat 1 and Cat3 files and calculate the eCQM measure with specific measure population. Also to check with files are appropriately generated to submit to CMS.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Capability of the EHR to export quality measure data used in achieving matching results C(2) calculation and submission of QRDA files to upload in CMS with the attestation. This will represent that EHR has the capability to import, calculate and export the specific eCQM data and they will be accepted by the CMS. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 5: 170.315(f)(1) Transmission to public health agencies—immunization registry

Task description:

Ability to generate a Immunization HL7 message for an administered immunization and transmit it via HL7 2.5.1 to a public health agency successfully. Verify in the production environment of successful VXU message transmissions to a public health agency.

Justification:

Ability to submit information on administered immunizations to a public health agency.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Proof of the ability to generate the VXU message for an administered immunization as well as the successful transmission to a public health agency via HL7 2.5.1. Total number of immunization messages send to registry will be captured on monthly basis. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 6: 170.315(e)(1) View, download, and transmit to 3rd party.

Task description:

Ability to create and make a valid CCDA available to the patient in the Physician solutions patient portal. And instructions on portal and API access via the patient portal. Also, patient's should have the capability to create a portal count and review their health information, including a C-CDA from their outpatient visit.

Justification:

To show the process for providing patient's access to their CCDA via the patient portal as well as demonstrating the portal capabilities available to the patients.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Patient should have access to their health information along with the instructions to view, download and transmit the CCDA files. While viewing the specific CCDA files, patient should be able to download and transmit from patient portal as well.

All CCDA elements should be present in the CCDA PDF document which is available in patient portal. Count of the number time views, download, and transmitted data will be captured via reports. . Total number patient CCDA documents made available for patients in portal, number invites to patient portal, access to patient portal details will be captures on monthly basis. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 7: 170.315(f)(2) Transmission to public health agencies—syndromic surveillance.

Task description:

Ability to generate a Syndromic Surveillance message for an internal medicine patient transmit it via HL7 to a public health agency successfully. Verify the same in production environment of successful Syndromic Surveillance HL7 message transmissions to a PHA.

Justification:

Ability to submit information on subjective/objective status of ED/urgent care patient on arrival to a public health agency including ability to record all clinical data elements, with the public registry.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Ability to generate the clinical information on patient arrival as well as the successful transmission to a public health agency via HL7. Measure status indicates compliance of the criteria. It has to show that the EHR can create the HL7 syndromic surveillance message, including the capability to record the required clinical data elements. In sending the syndromic surveillance message, the EHR will demonstrate the capability to confirm successful interoperability of patient's syndromic data to public health registry. Total number of Syndromic surveillance HL7 messages transmitted to state and regional registry will be tracked using report. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 8: 170.315(f)(5) Transmission to public health agencies – electronic case reporting.

Task description:

Ability to generate an Electronic Case Report and transmit it via Direct messaging to the CDC platform along with acknowledgement messages. Check in the same in production environment from the CCDA Transmission Logs.

Justification:

Ability to automatically generate and transmit an Electronic Case Report from the EHR and send the same to public health agency.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Ability to generate an Electronic Case Reporting CDA as well as the successful transmission to a public health agency via Direct messaging. Total number message transmitted to public agency will be tracked logs. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 9: 170.315(f)(6) Transmission to public health agencies — antimicrobial use and resistance reporting.

Task description:

Ability to generate Antimicrobial use and resistance reporting information in accordance with the following sections of the standard specified at § 170.205(r)(1) HL7 Implementation Guide for CDA® Release 2 – Level 3: Healthcare Associated Infection (HAI) Reports,

Justification:

Ability to automatically generate Antimicrobial use and resistance reporting information from the EHR and send the same to public health agency. Imports each antimicrobial use and resistance reporting document into the test tool for validation and uses the Validation Report produced by the test tool to verify the report indicates passing without error to confirm that the Antimicrobial use and resistance reporting document is conformant

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Ability to generate Antimicrobial Use and Resistance (AUR) Antimicrobial Resistance Option Report (Numerator), Antimicrobial Resistance Option (ARO) Summary Report (Denominator) and Antimicrobial Use (AUP) Summary Report (Numerator and Denominator). Total number of reports generated will be tracked via logs. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 10: 170.315(f)(7) Transmission to public health agencies — health care surveys

Task description:

Ability to generate health care survey information for electronic by the EHR module for patients and test data associated with the selected test cases.

Justification:

Ability to generate health care survey information for electronic by the EHR module for patients and test data associated with the selected test cases. It uses to understand the impact and value of interoperability element

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Ability to generate a Health Care Survey CDA as well as the successful upload to the CDC, including client attestation of success. All the data elements should be present in the survey document. . Total number of reports generated will be tracked via logs. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

RWT Task 11: 170.315(g)(7-9) Application access- Patient selection, data category request, All data request.

Task description:

Ability for a patient to make a request for patient details, data category for a specific data element, all data category from the Common Clinical Data Set via a 3rd party application that is connected to EHR using patient-facing API by following authentication.

Justification:

The ability to show the end-to end-functionality from when a patient makes a request for a data category request for one or more of the data elements in the Common Clinical Data Set from a 3rd party application connected to the EHR, Also, when patient required to get the all data category via API with all clinical data element which is authenticated and return of a data is received into the 3rd party application.

Care settings (2 clients):

- Dermatology
- Cardiology
- Urology
- Gynaecology
- Paediatrics
- internal medicine

Expected outcome:

Patient's ability to request and retrieve patient information and one or more data elements from the Common Clinical Data Set or all data category from the EHR's API into a 3rd party application.
Patient should be able to get the all category information in the XML and pdf format as well.
Total number of reports generated will be tracked via logs. Three months historical Logs will be monitored and counted as part of the measurement baseline details.

SCHEDULE OF KEY MILESTONES:

Key Milestone	Care Setting	Date/Timeframe
Care Coordination related functionalities will be enhanced as per cure Act update and data will be collected	Outpatient/Nursing home	8/15/2023
Development of affiliate practice list	Outpatient/Nursing home	10-10-2023
timeline for reaching out/scheduling transfer of data	Outpatient/Nursing home	11-10-2023
Integration testing	Outpatient/Nursing home	09-15-2023
length of time data will get collected	Outpatient/Nursing home	6 Months
validation of expected outcomes	Outpatient/Nursing home	05/20/2023
Report creations	Outpatient/Nursing home	05/29/2023
Clinical Quality Measures related functionalities will be enhanced as per cure Act update and data will be collected	Outpatient/Nursing home	9/15/2023
Development of affiliate practice list	Outpatient/Nursing home	08-09-2023
timeline for reaching out/scheduling transfer of data	Outpatient/Nursing home	08-09-2023
Integration testing	Outpatient/Nursing home	08-13-2023
length of time data will get collected	Outpatient/Nursing home	6 Months
validation of expected outcomes	Outpatient/Nursing home	08/20/2023
Report creations	Outpatient/Nursing home	08/29/2023
	Outpatient/Nursing home	
	Outpatient/Nursing home	
Patient Engagement, Public Health, API, and Electronic exchange functionalities will be enhanced as per cures Act and data will be collected	Outpatient/Nursing home	09/30/2022
Development of affiliate practice list	Outpatient/Nursing home	09-01-2022
timeline for reaching out/scheduling transfer of data	Outpatient/Nursing home	09-09-2022
Integration testing	Outpatient/Nursing home	09-13-2022
length of time data will get collected	Outpatient/Nursing home	6 Months
validation of expected outcomes	Outpatient/Nursing home	09/20/2022
Report creations	Outpatient/Nursing home	09/29/2022

Attestation and Authorized Signature:

Health IT developer: MDCharts LLC

Authorized name: Aaron Wachspress

Signature: Aaron Wachspress (Digitally signed)